

## **REMARKS**

Applicant hereby traverses the rejections of record and requests reconsideration and withdrawal of such in view of the remarks contained herein. Claims 1-30 are rejected. Claims 1-30 are pending in this application.

### **Rejections Under 35 U.S.C. 103(a)**

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Without conceding that the second criteria is satisfied, the Applicant respectfully asserts that the Examiner's rejection fails to satisfy the first and third criteria.

#### A. Davidovici & Fullerton

Claims 1-8, and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,212,244 to Davidovici et al (hereinafter "Davidovici") in view of U.S. Patent No. 6,823,023 to Fullerton et al (hereinafter "Fullerton").

#### 1. Lack of Motivation

In the Current Action the Examiner opines that it would have been obvious to combine Davidovici with Fullerton "to save time, resources and as a method of conserving bandwidth." *See* Current Action, pg. 3. As an initial matter, Applicant notes that the Examiner's proposed combination would change the principle operation of Davidovici. Where "the suggested combination of references would require a substantial reconstruction and redesign of the elements shown [in the primary reference]," there is no suggestion or motivation for that combination." *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (CCPA 1959). Davidovici provides an AGC circuit where gain is controlled in response to signal strength. Modifying Davidovici to tabulate statistical information about RF interference would require an almost complete transformation of Davidovici. That is,

Davidovici is not constructed to measure duration or periodicity of RF interference. Nor is Davidovici constructed to process (e.g., tabulate) statistics of that interference. Therefore, requiring Davidovici to do so would usurp its principle operation.

Moreover, it is well settled that the fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness. *See* M.P.E.P. §2143.01. The language of the recited motivation is circular in nature, stating that it is obvious to make the modification because it is obvious to achieve the result. Such language is merely a statement that the reference can be modified, and does not state any desirability for making the modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 913 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the modification.

2. Failure to Teach or Suggest Every Claim Limitation

Claim 1 recites “means for tabulating statistical information about periodicity and duration of RF interference.” In the Current Action the Examiner points to components 23, 25, and 26 of Davidovici as teaching “means for tabulating statistical information of RF interference.” *See* Current Action, pg. 2. As an initial matter, Applicant notes that Davidovici discloses an Automatic Gain Control (“AGC”) system where AGC gain is adjusted according to an AGC signal. Davidovici’s AGC signal is generated by a received-signal-strength-indicator (“RSSI”) signal. *See* Davidovici, Abstract. As such, Davidovici adjusts AGC gain according to the power level of a received signal, not statistical information of RF interference, as set forth in claim 1. Referring to figure 1, Davidovici teaches an RSSI circuit 23, RSSI analog-to-digital converter 25, and an RSSI-mapping circuit 26. Each of the components are part of an RSSI response mechanism. Clearly, Davidovici merely describes tabulating RSSI information, not statistical information of RF interference. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claim 1 also recites “means operable, at least in part, to certain tabulated statistics for directing receiver gain of said gain control system.” In the Current Action the Examiner points to component 28 of Davidovici as teaching “means operable, at least in part, to ascertain tabulated statistics for directing receiver gain.” *See* Current Action, pg. 2. Applicant points out that Davidovici’s 28 is an analog to digital converter, which would not ascertain tabulated statistics. Further, Applicant notes that Davidovici discloses the following:

The received signal at the RF stage is first filtered, amplified and then input to the AGC amplifier 21 whose gain is controlled by a filtered analog-AGC signal output from the AGC digital-to-analog converter 28. The amplified signal level power is measured to produce the RSSI signal. The RSSI signal is filtered by RSSI low pass filter 24 and then digitized via a RSSI analog-to-digital converter 25. *See* Davidovici at col. 5 line 64 – col. 6 line 3.

As seen from the excerpt above, DAC 28 is used to convert an RF signal to be used in producing a receiver-signal-strength, or RSSI signal. The RSSI signal is then used to adjust gain. In any event, there is no mention of certain tabulated statistics, much less certain tabulated statistics of RF interference, as set forth in claim 1. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claim 13 recites “gathering statistical information about periodicity and duration of RF interference.” In the Current Action, the Examiner relies upon the rationale set forth in rejecting claim 1 to reject claim 13. As such, Applicant can best respond by reiterating that Davidovici does not teach or suggest gathering statistical information of RF interference. Instead, Davidovici relies upon an RSSI signal to adjust AGC gain. Clearly, a received signal strength indication is not the same as RF interference. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claims 2-8, and 12 depend directly or indirectly from claim 1 and claims 14-19 depend directly or indirectly from claim 13. Each dependent claims inherits every limitation

of the claim from which it depends. As shown above, the combination of Davidovici and Fullerton does not teach or suggest every limitation of claim 1 and 13. As such, claims 2-8, 12, and 14-19 are patentable in their own right, and set forth limitations not taught or suggested by the proposed combination. Therefore, Applicant requests withdrawal of the rejection of record. Moreover, the dependent claims introduce additional new and non-obvious limitation not shown in the art of record.

For example, claim 8 recites “means operable, at least in part, to certain tabulated statistics for changing an RF frequency of transmissions.” In the Current Action, the Examiner points to Fullerton, at col. 22 lines 26-31, as satisfying this limitation. *See* Current Action, pg. 5. In doing so the Examiner opines that Fullerton’s “other measures” satisfies this limitation. Applicant respectfully disagrees and points out that simply noting that other measures are available fails to meet changing an RF frequency of transmissions, as set forth in claim 1, with the specificity required under 35 U.S.C. 103. It is well settled that to anticipate a claim, the reference must teach every element of the claim. *See* M.P.E.P. § 2131. Therefore, Applicant requests withdrawal of the rejection of record.

B. Davidovici, Fullerton, & Lempiainen

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davidovici in view of Fullerton in further view of U.S. Patent No. 6,510,312 to Lempiainen (hereinafter “Lempiainen”).

1. Lack of Motivation

In the Current Action the Examiner simply states “it would have been obvious ...to incorporate the teachings of Lempiainen at a method of reducing intercellular interference.” *See* Current Action, pg. 9. However, the Examiner wholly fails to provide any rationale as to what suggests such a combination or why one of skill in the art would have motivated to do make the modification. “The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done.” *See* M.P.E.P. 2142. Therefore, Applicant requests withdrawal of the rejection of record.

2. Failure to Teach or Suggest Every Claim Limitation

Claim 9 recites “means operable, at least in part, to certain tabulated statistics [of RF interference] for changing antenna polarity of RF transmissions.” In the Current Action the Examiner relies upon Lempiainen to satisfy this limitation. However, Applicant notes that Lempiainen changes antenna polarity solely based upon how close the base station and receiver station are located to one another. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Also, claim 9 depends from claim 1 and inherits every limitation therefrom. As shown above, the combination of Davidovici and Fullerton does not teach or suggest every limitation of this claim. Moreover, Lempiainen is not relied upon to teach or suggest the missing limitation, nor does it do so. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

C. Davidovici, Fullerton, & Gutleber

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davidovici in combination with Fullerton in further view of U.S. Patent No. 4,457,007 to Gutleber (“Gutleber”).

1. Lack of Motivation

In the Current Action the Examiner simply states “it would have been obvious ...to apply the method as taught by Gutbeler as a method of reducing interference caused by multipath returns.” *See* Current Action, pg. 10. However, the Examiner wholly fails to provide any rationale as what suggests such a combination or why one of skill in the art would have motivated to do make the modification. “The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done.” *See* M.P.E.P. 2142. Therefore, Applicant requests withdrawal of the rejection of record.

2. Failure to Teach or Suggest Every Claim Limitation

Claim 10 depends from claim 1 and inherits every limitation therefrom. As shown above, the combination of Davidovici and Fullerton does not teach or suggest every limitation of this claim. Moreover, Gutleber is not relied upon to teach or suggest the missing limitation, nor does it do so. As such, the Examiner's proposed combination fails to teach or suggest every limitation of Applicant's invention. Therefore, Applicant requests withdrawal of the rejection of record.

D. Davidovici, Fullerton, & Eidson

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davidovici in combination with Fullerton in further view of U.S. Patent No. 6,256,477 to Eidson et al ("Eidson").

1. Lack of Motivation

In the Current Action the Examiner simply states "it would have been obvious ...to apply the teachings of Eidson as a known method of mitigating interference in an RF system." *See* Current Action, pg. 10. However, the Examiner wholly fails to provide any rationale as what suggests such a combination or why one of skill in the art would have motivated to do make the modification. "The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done." *See* M.P.E.P. 2142. Therefore, Applicant requests withdrawal of the rejection of record.

2. Failure to Teach or Suggest Every Claim Limitation

Claim 11 recites "means operable, at least in part, to certain tabulated statistics for equalizing multipath events of an RF transmission." In the Current Action the Examiner relies upon Eidson as satisfying this limitation. However, Applicant respectfully points out that Eidson does not teach or suggest equalizing multipath events as set forth in claim 11. Instead, Eidson merely discloses that a receiver may predict interference from another unit and switch carrier frequencies to avoid degradation of the signal. *See* Eidson col. 3 lines 2-5.

Also, claim 11 depends from claim 1 and inherits every limitation therefrom. As shown above, the combination of Davidovici and Fullerton does not teach or suggest every limitation of this claim. Moreover, Eidson is not relied upon to teach or suggest the missing limitation, nor does it do so. As such, the Examiner's proposed combination fails to teach or suggest every limitation of Applicant's invention. Therefore, Applicant requests withdrawal of the rejection of record.

E. Kaku & Fullerton

Claims 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,072,998 to Kaku ("Kaku") in view of Fullerton.

1. Failure to Teach or Suggest Every Claim Limitation

Claims 20 and 26 recite "a digital delay stage delaying incoming RF data signals and outputting delayed IF signals." In the Current Action the Examiner points to elements 4 and 97 of Kaku as satisfying this limitation. *See* Current Action, pg. 6. However, Kaku discloses:

The adder 96 calculates the sum of the output of the control signal generator 95 and a gain control signal  $V_i$ , which has been delayed by a delay element 97, and outputs the sum, as a new gain control signal  $V_{att}$ , to the variable gain attenuator 2 via the delay element 97. As is apparent from the above description, the control signal generator 95, the adder 96 and the delay section 97 constitute control signal output means. *See* Kaku, col. 12 lines 8-15.

This excerpt makes clear that Kaku's delay element 97 delays the gain control signal ( $V_i$ ), not an incoming RF data signal, and outputs the sum of the control signal generator output and gain control signal, not delayed IF signals. Moreover, component 4 of Kaku is merely a "a frequency converter 4, for converting a received high frequency signal into an intermediate frequency signal." *See* Kaku at col. 9 lines 54-56. As such, the Examiner's citation does satisfy the claim limitation. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner's proposed combination fails to teach or suggest every limitation of Applicant's invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claims 20 recites “means for controlling said variable gain stage in response to said gathered statistical information to adjust gain of said delayed IF signals mitigating effects of said RF interference on said signals;” similarly, claim 26 recites “a response stage adjusting said variable gain stage in response to said periodicity and duration information to mitigate effects of said RF interference on said signals. In the Current Action the Examiner points to Kaku, at col. 15 lines 23-46, as satisfying each of these limitations. *See* Current Action, pgs. 11 & 14. However, Applicant notes that at the Examiner’s citation Kaku merely discloses the use of a quality deterioration index, T, as a parameter to control attenuation provided by a variable gain stage. Applicant respectfully submits that such does not satisfy the claim limitations. Namely, there is no teaching or suggestion of controlling variable gain in response to statistical information gathered for periodicity and duration information with respect to RF interference, as recited in the claims. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claim 20 further recites “means for monitoring RF interference.” In the Current Action the Examiner points to Kaku’s error detector 10 as satisfying this limitation. *See* Current Action, pg. 11. However, according to Kaku, error detector 10 is used for “detecting, from the output to the demodulator 8, a frame error count for a predetermined frame.” *See* Kaku at col. 9 lines 64-65. As shown, Kaku’s error detector 10 detects demodulated frame error counts, not RF interference as set forth in claim 1. Moreover, Fullerton is not relied upon to teach or suggest this missing limitation. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.

Claims 21-30 depend from claim 20 and inherit every limitation therefrom. As shown above, the combination of Kaku and Fullerton does not teach or suggest every limitation of this claim. As such, the Examiner’s proposed combination fails to teach or suggest every limitation of Applicant’s invention. Therefore, Applicant requests withdrawal of the rejection of record.



**Conclusion**

In view of the above, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 68144/P002US/10501219 from which the undersigned is authorized to draw.

Dated: September 18, 2006

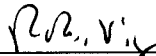
Respectfully submitted,

I hereby certify that this correspondence is being electronically filed with MS-Amendments, Commissioner for Patents, through EFS web filing.

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